

CLAIMS

1. A method, in a computer node, for transferring a data message, the method comprising:

transferring a first data packet to a speculatively pre-defined destination;

5 loading a packet descriptor into a communications adapter, wherein the loading is concurrent with the transferring and the packet descriptor identifies the speculatively pre-defined the destination; and

transferring, in dependence upon the packet descriptor, a second data element to the pre-defined destination.

10

2. The method according to claim 1, wherein the transferring of the first data element and the transferring of the second data element comprises loading the first data element and the second data element into a fast data queue, wherein the fast data queue only queues data elements for transmission to the pre-defined

15 destination.

3. The method according to claim 1, wherein at least one of the first data element and the second data element each comprise a user data portion that is equal to the size of a cache buffer.

20

EXPRESS MAIL LABEL NO.: EV343426235US

4. The method according to claim 1, wherein the loading further comprises configuring, concurrently with the transferring of the first data element, the communications adapter for the transferring of the second data element.

5 5. The method according to claim 1, wherein the loading comprises loading the packet descriptor into a fast descriptor queue for subsequent transfer to the communications adapter.

6. The method according to claim 5, further comprising loading a second packet
10 descriptor into the fast descriptor queue, wherein the loading the second packet descriptor is performed prior to the transferring the second data element.

7. The method according to claim 5, further comprising altering the packet
descriptor while the packet descriptor is in the fast descriptor queue and reloading
15 the packet descriptor into the communications adapter prior to transferring the second data element.

EXPRESS MAIL LABEL NO.: EV343426235US

8. A computing node comprising:

a fast data element transmitter for transferring a first data element and a second data element to a pre-defined destination;

5 a fast descriptor interface for loading a packet descriptor concurrently with the transferring of the first data element, wherein the packet descriptor identifies the pre-defined destination and is used to configure the fast data packet transmitter for transferring the second data element.

9. The computing node according to claim 8, further comprising a fast data
10 queue for queuing data elements for transmission to the pre-defined destination.

10. The computing node according to claim 8, wherein at least one of the first data element and the second data element each comprise a user data portion that is equal to the size of a cache buffer.

15

11. The computing node according to claim 8, wherein the pre-defined destination is associated with a neighboring computer node.

12. The computing node according to claim 8, further comprising a fast descriptor
20 queue for queuing the packet descriptor for subsequent transfer to the fast descriptor interface.

EXPRESS MAIL LABEL NO.: EV343426235US

13. The computing node according to claim 12, further comprising loading a second packet descriptor into the fast descriptor queue prior to the transferring of the second data element.

14. A signal bearing medium including a program which, when executed by a processor, performs operations for transferring a data message, the operations comprising:

transferring a first data element to a pre-defined destination;

5 loading a packet descriptor into a communications adapter, wherein the loading is concurrent with the transferring and the packet descriptor identifies the pre-defined destination; and

transferring, in dependence upon the packet descriptor, a second data element to the pre-defined destination.

10

15. The signal bearing medium of claim 14, wherein the transferring of the first data element and the transferring of the second data element comprises loading the first data element and the second data element into a fast data queue, wherein the fast data queue only queues data elements for transmission to the pre-defined

15 destination.

16. The signal bearing medium of claim 14, wherein each of at least one of the first data element and the second data element comprises a user data portion that is equal to the size of a cache buffer.

20

EXPRESS MAIL LABEL NO.: EV343426235US

17. The signal bearing medium of claim 14, wherein the loading further comprises configuring, concurrently with the transferring of the first data element, the communications adapter for the transferring of the second data element.

5 18. The signal bearing medium of claim 14, wherein the loading operation comprises loading the packet descriptor into a fast descriptor queue for subsequent transfer to the communications adapter.

10 19. The signal bearing medium of claim 18, wherein the operations further comprise loading a second packet descriptor into the fast descriptor queue, wherein the loading the second packet descriptor is performed prior to the transferring the second data element.

15 20. The signal bearing medium of claim 18, wherein the operations further comprise altering the packet descriptor while the packet descriptor is in the fast descriptor queue and reloading the packet descriptor into the communications adapter prior to transferring the second data element.